- 1. (Allowed) A bushing for making fibers from a molten material, said bushing comprising at least one sidewall, a tip plate or orifice plate through which the molten material flows to form the fibers, and a first screen having holes therethrough mounted in an interior of the bushing and having a generally uniform hole size and hole density, said first screen having a total area and a percentage of hole area based on the total area, said first screen spaced above said tip plate, and said first screen being attached to said at least one sidewall, the improvement comprising a second screen lying on top of said first screen, said second screen having holes therethrough and a significantly lower percentage of hole area, based on a total area of the second screen, than the percentage of hole area of said first screen, based on the total area of the first screen.
- 2. (Previously presented) A bushing for making fibers from a molten material, said bushing comprising at least one sidewall, a tip plate or orifice plate through which the molten material flows to form the fibers, and a screen having a plurality of holes therethrough, said screen mounted on an interior of the bushing and spaced above a top of the tip plate or orifice plate, said screen being attached to said at least one sidewall, the improvement comprises a generally mid or central portion of the screen having a hole area per unit area of screen that is significantly smaller than a hole area per unit area of screen of two end portions of the screen, one end portion being on either side of the mid or central portion, one of said end portions being smaller in area than the other of said end portions.
- 3. (Allowed) The bushing of claim 1 wherein said molten material is glass and said bushing, including the first screen and the second screen, is made from a precious metal or precious metal alloy with a major portion of said metal or metal alloy being platinum.—
- 4. (Previously presented) The bushing of claim 2 wherein said molten material is glass and said bushing, including the first screen and the second screen, is made from a precious metal or precious metal alloy with a major portion of said metal or metal alloy being platinum and wherein said second screen has a thickness of between about 0.009 to about 0.015 inch.
- 5. (Allowed) The bushing of claim 1 wherein significantly lower is at least 10 percent lower.

- 6. (Allowed) The bushing of claim 5 wherein significantly lower is at least 20 percent lower.
- 7. (Allowed) The bushing of claim 6 wherein said significantly lower is at least 30 percent lower.
- 8. (Previously presented) The bushing of claim 2 wherein said significantly smaller is at least 10 percent smaller and a total hole area in said end portions ranges between about 10 to about 16 percent of total area of the end portions.
- 9. (Previously presented) The bushing of claim 8 wherein said significantly smaller is at least 20 percent smaller.
- 10. (Previously presented) The bushing of claim 9 wherein the hole area per unit area of screen in said mid or central portion is at least 30 percent less than the hole area per unit area of said end portions.
- 11. (Previously presented) A lay in screen of a precious metal or precious metal alloy for laying on top of another screen in a fiberizing bushing, said lay in screen having a plurality of holes therethrough, said lay in screen comprised of a mid or central portion and two end portions, said mid or central portion having a hole area per unit area of the mid or central portion that is significantly less than a hole area of the two end portions per unit area of the two end portions, one of the two end portions being smaller than a remaining end portion, and said lay in screen having a thickness in a range between about 0.009 and 0.011 inch.
- 12. (Original) The screen of claim 11 wherein said significantly less is at least 10 percent.
- 13. (Original) The screen of claim 12 wherein said significantly less is at least 20 percent.
- 14. (Original) The screen of claim 13 wherein said significantly less is at least 25 percent.
- 15. (Original) The screen of claim 14 wherein said significantly less is at least 30 percent.

303-978-2323

- 16. (Previously presented) A method of making fibers from a molten material wherein said molten material flows into a bushing comprising at least one sidewall and a tip plate or orifice plate through which the molten material flows to form the fibers, said bushing further comprising a first screen having holes therein through which the molten glass flows, the first screen having a generally uniform hole size and density, at least some of the holes having a diameter, said first screen having a percentage of hole area per unit of screen area of said first screen, said first screen being spaced above said tip plate or orifice plate, said first screen being attached to said at least one sidewall, the improvement comprising using a second screen lying on top of said first screen, said second screen having holes therein through which the molten glass flows, at least some of the holes in said second screen having a diameter smaller than the diameter of the at least some of the holes in said first screen, and said second screen having a significantly lower percentage of hole area per unit of screen area than the percentage hole area per unit of screen area of said first screen such that resistance to flow of the molten material through the second screen is greater than the resistance to flow of the molten material through the first screen.
- 17. (Previously presented) The method of claim 16 wherein said molten material is glass and said bushing is made from precious metal or alloys of precious metal containing a majority of platinum, wherein a thickness of said second screen is between about 0.009 and 0.015 inch and wherein said significantly lower is at least about 10 percent lower.
- 18. (Original) The method of claim 17 wherein said significantly lower is at least about 20 percent lower.
- 19. (Original) The method of claim 18 wherein said significantly lower is at least about 30 percent lower.
- 20. (Previously presented) The method of claim 16 wherein said bushing is used to make direct chopped fibers at maximum productivity having a diameter that is at least three microns smaller than the fiber that a bushing containing only said first screen can make at maximum productivity.

07/12/2006 17:16

- 22. (Previously presented) The method of claim 21 wherein significantly less than is at least about 30 percent less.
- 23. (Currently amended) A method for forming fibers from a molten material in at least one multi-bushing leg on a channel that receives the molten material from a melting tank, comprising transporting the molten material in the channel to the at least one multi-bushing leg and by flowing the molten material through a bushing in a first position, next to the channel. [[.]] in the at least one bushing leg, said bushing comprising at least one sidewall and a tip plate or orifice plate through which the molten material flows to form the fibers, and a first screen spaced above said tip plate or orifice plate and having a plurality of holes therein through which the molten material flows, the first screen being attached to said at least one sidewall, the improvement comprising using a second screen lying on top of the first screen in the bushing, said second screen having a mid or central portion and two end portions, one of the two end portions being on one side of the mid or center portion and another of said two end portions being on an opposite side of said mid or center portion, said second screen having a hole area per unit area of said

second screen in the mid or central portion of said second screen that is significantly less than a hole area per unit area of screen in the two end portions of said second screen such that a resistance to flow of the molten material through the mid or central portion of said second screen is greater than a resistance to flow of the molten material through the two end portions of the second screen.

24. (Previously presented) The method of claim 23 wherein the hole area per unit area of said mid or central portion of said second screen is at least about 10 percent less than the hole area per unit area of screen in the two end portions.